Britain's Winning Strategy for Energy Infrastructure 2025 to 2050

An open letter calling for imagination, common sense and consideration to local communities as the nation decides on the best approach to solving the future cost, security and environmental impact of energy provision *by Fiona Gilmore, Founder and Director, Suffolk Energy Action Solutions (SEAS).*

Energy, its future cost and security is one of the main issues facing this country and yet so far it has drawn little attention or interrogation in the national election debate. Successive Governments have allowed piecemeal and careless plans to trundle through planning systems headed by National Grid over the last decade.

We need to consider THE BIGGER PICTURE of the unprecedented and recently planned scale of offshore wind power capacity and the need for more modern, flexible and efficient transmission network solutions, to deliver energy offshore, directly and more cheaply to major brownfield hub sites, such as Grain.

Holland has ordered over 14 offshore platform systems and has chosen Rotterdam as a major onshore hub and Belgium has chosen Zeebrugge, another brownfield hub, eschewing options involving tourism destinations for Nature lovers. Belgium is in the process of implementing its second Modular Offshore Grid (MOG), Germany and Denmark have also started to build their grid frameworks.

Over the last five years, our Campaign group SEAS has benchmarked these best-in-class solutions, and even though Britain's ambitions are greater in scale and more complex, this is a technology-led revolution and the same strategic design principles and technology apply.

There are no real barriers to making this happen now. Procurement delays are a thing of the past if Great British Energy (GBE), or whatever name applies to the new independent system operator, seizes the opportunity to encourage startup British factories, e.g. to manufacture superconducting cables which could carry 10GW of energy in place of the current 2GW. GBE could own the offshore platforms where wind energy is pooled, with an open competition to install the new grid, no longer dependent on a monopolistic National Grid plc. Part of GBE should be an Advanced Design Energy (ADE) infrastructure fast-track unit focused on accelerating the public/ private sector partnerships to realise these opportunities without delay. Innovators such as Octopus Energy, Siemens Energy, Hitachi OceaniQ and Semco Maritime should be welcomed to the table.

This is Britain's Winning Solution.

National Grid plc has pushed misleading cost estimates across the media stating that these systems cost four times more. This is comparing apples with pears. They are simplistically comparing the price of pylons versus subsea cables. They do not include other developers' costs associated with transporting energy from wind farms to where it connects to the onshore grid. Nor do they compare the total cost of their current plans versus a flexible grid over a 20 year+ usage period. Long term planning must now be the imperative.

As any Energy Economist knows, the overall cost of offshore platforms and subsea cables is cheaper than the current plans. Let's explode this mythology once and for all.

As Ofgem states in its 1 March 2024 report "Initial Project Assessment (IPA) of Offshore Hybrid Assets (OHA)":

> "..it is expected that OHAs could play an important role in enabling the development of offshore renewables in the context of increasingly crowded seas and supply chain constraints, reducing the number of assets required to connect generation and consequently reducing investment costs and adverse societal impacts..."

Ofgem concludes from its in-depth research that the benefits include:

- Lower prices for consumers
- Diversification of GB's energy sources to balance supply and demand
- Share excess capacity
- Enhance grid resilience

In essence, it is cheaper in the mid-term because there is at least 50% less onshore substation infrastructure and it's faster because there is less infrastructure required once the basic offshore platform system is constructed, pooling energy and taking it more directly to where demand is. There will be fewer judicial reviews with this more sustainable solution more enthusiastically received by communities who deplore National Grid's desecration of wildlife havens, areas of outstanding beauty and wetlands (our tropical rainforest).

Right now, Britain has a golden opportunity, one chance for future generations to pivot to more strategic, flexible and cost-effective offshore solutions. Offshore should be the default position.

We believe all parties should halt the current ill-conceived plans until there is a neutral advisory team established to carry out holistic comparative evaluation studies. National Grid's East Anglia Study was flawed from the outset, with too many subjective conclusions which do not stand up to scrutiny.

We believe that all parties need to recognise that solving our energy cost and security issues should be a project where the Electricity System Operator and community representatives should participate as EQUALS in the strategic discussions around the spatial energy plan. Communities have much to offer in these discussions, but they have been excluded from the initial strategic discussions by successive Governments. Nick Winser in his Energy Infrastructure report (July 2023) is quite forthright on the benefit of early involvement with local communities who know their areas best. There should be Community task forces involving local ecologists, tourism and hospitality business representatives as well as heritage and landscape specialists.

The word NIMBY is too easily bandied around to discredit local communities who face a decade of destruction and inconvenience, ecological devastation, the loss of one billion pounds of tourism in the Aldeburgh and Southwold area alone, over the next twelve years (source: DMO 2019 independent quantitative study) and further decades of needless blight.

Britain needs a master plan for Energy Infrastructure, and it doesn't have one yet. Parties must commit to independent advisors who calculate the cost of a new offshore grid using brownfield sites as the major onshore hub locations, closer to demand and crying out for investment. They should consider the best solution in financial, ecological, community and local economy terms. Currently National Grid plc continues to present plans for energy infrastructure which are needlessly destructive.

The SEAS campaign is proposing a moratorium for a year in order that a new independent team can assess the spatial energy strategy and recommend optimal solutions using brownfield sites for major Hubs across the UK.

We ask all political parties who are ready to recognise the seriousness of the issue of energy costs and security to pledge to find the best solution, not just the most rewarding for National Grid shareholders, but for the mid and long-term benefit of UK consumers and citizens, and with a legacy that makes us proud.

Yours sincerely

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Fiona lives in coastal Suffolk and has had a home here for over 36 years. Fiona was a strategic adviser to Governments in the Middle East, Sub Sahara Africa, Asia and island states from 1992 to 2014. Fiona led strategic projects for economic and social development and has worked in the alternative fuels sector from 2009 to 2011 in the Middle East.

Since 2019, Fiona has headed up, working as a volunteer, a campaign called Suffolk Energy Action Solutions (SEAS), to promote renewable energy, offshore solutions for energy infrastructure and to safeguard ecology, wildlife havens, local tourism jobs and community well- being.

The SEAS campaign is becoming a nationwide rallying cry to Government and developers to listen to communities and to see a bigger picture.

"We can speed up our renewable energy infrastructure without needless destruction to our countryside. This can be a win/ win".

SEAS volunteers include specialist engineers, ecologists, legal counsel and tourism business champions.